

WHAT IS CLAIMED IS:

- 1 1. A method of recycling used hydrocarbon-based carrier liquid
2 comprising:
3 receiving (402) said used hydrocarbon-based carrier liquid;
4 removing (404) contaminants in said used hydrocarbon-
5 based carrier liquid to produce an output hydrocarbon-based carrier liquid;
6 and
7 monitoring (406) an electrical property of said output
8 hydrocarbon-based carrier liquid to determine the suitability of said output
9 hydrocarbon-based carrier liquid for predefined application.
- 1 2. The method of claim 1 wherein said receiving (402) of said used
2 hydrocarbon-based carrier liquid includes receiving said used
3 hydrocarbon-based carrier liquid directly from an electrostatic imaging
4 system (104).
- 1 3. The method of claim 1 or 2 wherein said removing (404) of said
2 contaminants includes separating (404A) water from said used
3 hydrocarbon-based carrier liquid and filtering (404B) solid particulates in
4 said used hydrocarbon-based carrier liquid.
- 1 4. The method of claim 1, 2 or 3 wherein said monitoring (406) of said
2 electrical property of said output hydrocarbon-based carrier liquid includes
3 monitoring the resistivity of said output hydrocarbon-based carrier liquid to
4 determine the suitability of said output hydrocarbon-based carrier liquid for
5 use in an electrostatic imaging process.
- 1 5. The method of claim 1, 2, 3 or 4 further comprising repeating said
2 removing (404) of said contaminants and said monitoring (406) of said
3 electrical property for said output hydrocarbon-based carrier liquid when
4 said electrical property is below a predefined threshold.

1 6. A system for recycling used hydrocarbon-based carrier liquid
2 comprising:
3 a contaminant removal device (206) having an input to
4 receive said used hydrocarbon-based carrier liquid, said contaminant
5 removal device being configured to remove contaminants in said used
6 hydrocarbon-based carrier liquid to produce an output hydrocarbon-based
7 carrier liquid; and
8 a monitoring device (208) configured to monitor an electrical
9 property of said output hydrocarbon-based carrier liquid to determine the
10 suitability of said output hydrocarbon-based carrier liquid for predefined
11 application.

1 7. The system of claim 6 further comprising an electrostatic imaging
2 system (104) that uses liquid toner having hydrocarbon-based carrier
3 liquid, said electrostatic imaging system being configured to extract said
4 used hydrocarbon-based carrier liquid from used liquid toner, said
5 electrostatic imaging system being connected to said input of said
6 contaminant removal device (206) to provide said used hydrocarbon-
7 based carrier liquid.

1 8. The system of claim 6 or 7 wherein said contaminant removal
2 device (206) is configured to separate water from said used hydrocarbon-
3 based carrier liquid and filter solid particulates in said used hydrocarbon-
4 based carrier liquid.

1 9. The system of claim 8 wherein said contaminant removal device
2 (206) includes at least one diesel fuel filter and water separator (214, 216).

1 10. The system of claim 6, 7, 8 or 9 wherein said monitoring device
2 (208) is configured to monitor the resistivity of said output hydrocarbon-
3 based carrier liquid to determine the suitability of said output hydrocarbon-
4 based carrier liquid for use in an electrostatic imaging process.